

Single-Piece Clothing Protective Device

Utility Patent Application of

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For

TITLE: Single-Piece Clothing Protective Device

FEDERALLY SPONSORED RESEARCH

Not Applicable

SEQUENCE LISTING OR PROGRAM

Not Applicable

BACKGROUND—FIELD OF INVENTION

This invention relates to a single-piece clip device, specifically employed as a means to hold a napkin protective of the wearer's clothing.

BACKGROUND—DESCRIPTION OF PRIOR ART

All too often a diner finds a portion of his or her meal on a valued garment. The napkin as usually employed protects the user's lap only, providing but partial protection from such occurrences.

A napkin or bib supported high on the wearer's person provides an improved measure of protection, and the implementation of such a napkin supporting device has been thoroughly investigated by prior art.

Simply stuffing a napkin over the collar of the wearer is an obvious means to accomplish this goal, but has drawbacks of discomfort and may not be practical in the case of a tight, loose fitting, or absent collar. Furthermore the appearance of a stuffed napkin is considered poor etiquette in many situations.

A successful napkin supporting device must readily accommodate a variety of napkins and securely affix such napkin to the wearer's person. It should be convenient to use, comfortable to employ, and extremely low cost so as to be disposable.

Prior art addresses these needs to various degrees of success. A simple clamp affixed to collar hook has been suggested (Hardy US 184,376; Pascoe US 541,384; Peters US 836,458; Ochsman US 5,933,922.) Alternate means include a neck-encircling member (Nelson US 324,039; Humphrey US 1,669,983; Lokken US 5,191,681) and clamps that are supported from a frontal button (Short US 1,864,281.) A novel magnetic clamp with multiple pieces is the subject of Juda et al. (US 6,182,335.)

While these devices all satisfy the requirement of napkin support they invariably are complex and relatively expensive to manufacture. Low cost single piece devices that address the problem of cost are found in the Short patent and others (Hart US 2,247,372; Barnes US 2,287,717.)

These single piece devices, while extremely low cost and readily manufactured lack a easily used clip, and require the user to wind the napkin through some slot or notch.

Single piece spring clips such as taught by Duarte US 3,305,904 have been suggested for use as a clothesline fastener; such devices are single piece spring clamps but are not optimized for the protection of clothing and would be awkward to wear.

An advantage to any of these designs would be the ability to display a simple card with text (such as a name card), image or logo and provide a means to support such. Although this capability is expressed by Basseches et al. and Ochsman, neither has an inherent holding mechanism and must rely on stamped messages or the application of a decal.

Objects and Advantages

The device disclosed herein addresses the need for:

(a) A single-piece napkin clip, with advantages of low-cost manufacture and inherent reliability. An single-piece device allows for a minimized manufacturing cost of a spring clip.

(b) A convenient napkin-affixing mechanism requiring minimal manipulation by the user. A spring clip is a familiar device that adapts to napkins of various weights and thicknesses.

(c) A versatile clip adaptable to a variety of clothing styles. A curved portion of the disclosed device readily hooks over the wearer's collar or necktie, and can adapt to the front of a lady's gown.

(d) A napkin holding clamp that provides inherent means to hold a printed card. Molded ridges on the front of the disclosed device allow for a standard sized business card or other image of this form factor to be firmly held.

SUMMARY

In accordance with the present invention a napkin clip comprises a single-piece plastic clamp with clothing attachment hook, and a means to affix printed material on a card without adhesive.

DRAWINGS**Drawing Figures**

Fig 1 shows the clip in perspective view.

Fig 2 shows an elevation side view of the clip in both the closed (Fig. 2a) and open (Fig. 2b) position.

Fig 3 is a perspective view of the clip in a normal wearing configuration.

Fig 4 is a perspective view of the clip with the wearer displaying a card in the ridges provided.

Fig 5 is a rear elevation of the clip showing an optional notch provided for attachment to a shirt or blouse button, in lieu of application of the hook member.

Reference Numerals In Drawings

- 10 base of clip
- 12 hook extension of the base
- 14 contacting portion of base
- 15 contacting portion of moving member
- 16 spring portion of clip
- 18 card holding bottom ridge
- 19 moving member of clip-open position
- 20 moving member of clip-closed position
- 22 card holding top ridge
- 24 napkin
- 26 collar of wearer
- 27 shirt of wearer
- 28 necktie of wearer
- 30 card
- 32 optional notch in hook extension

DETAILED DESCRIPTION**Description-Figs 1,2,3 Preferred Embodiment**

A preferred embodiment of the present invention is illustrated in Fig 1, a perspective view of the device in the normal, closed position. As is conventional in plastic injection molding, all component parts are derived from a body of plastic resin extracted by a machined die. It is advantageous in such a manufacturing process that the wall thickness of the various elements be substantially equal. The component parts of the single-piece part comprise a base 10 held against the person of the wearer by hook 12.

One or more ridges on the base 10, in this case a single ridge 14 provide a frictional surface for opposing moving element 20 and a protruding ridge 15 provided thereon.

Spring member 16 separates base and moving element, and provides a resilient action when the top of the lever arm 22 is compressed towards the base. This compression extends the opening between base ridge 14 and moving ridge 15 as is shown in Fig 2.

Fig 2a illustrates the normally closed position of the clip, with tip 15 of moving member 20 resting against base 10 and base ridge 14. The dotted line portion of Fig 2 shows the extended position 19 of moving member 20, sufficient to accommodate a napkin.

Fig 3 shows in perspective the normal use of the invention, in this case shown holding a napkin 24 and protecting both shirt 27 and necktie 28.

In this configuration, hook 12 of the base element extends upon and over the wearer's collar 26 and tie 28.

Fig 4 shows how the invention might be used to hold some means of printed material, without the need of adhesives. Top ridge 22 and

bottom ridge 18 comprise an aperture for a card 30 to be inserted from the side and slid horizontally to the shown position.

Fig 5-Additional Embodiment

Optionally, the invention may be machined with a secondary operation providing a notch 32 shown in Fig 5. This notch allows attachment to a shirt button or other protrusion.

Advantages

From the above description, a number of advantages of the single-piece napkin clip become evident:

- (a) The single piece construction ensures minimal manufacturing cost.
- (b) A spring clip action is natural for the user, and obviates contortion of the napkin through an opening or notch. Furthermore the napkin is readily released.
- (c) The hook design accommodates almost all articles of clothing that might be considered.
- (d) Ridges added to the invention for presentation of a printed card add minimal cost in the design of the mold.

Operation-Figs 2,3

As has been described, operation of this device requires that the wearer open the spring clip by applying pressure to the moving member as with a conventional clothespin. A napkin is inserted into the gap thus realized.

The secured napkin is fastened to the garment of the wearer, as is shown in Fig 3, thus accomplishing the protective purpose. Removal of the device and napkin amounts to a reversal of this process.

Conclusion, Ramifications and Scope

Accordingly, the reader will see that the single-piece napkin clip can become an extremely low cost means to affix a napkin over the clothes of a diner. The single piece construction possesses inherent advantages of reliability and ease of manufacture. Added benefits of the molding process allow a card holder to be added without a complicated die structure. A notch may be provided on the obverse of the device so that a button may be used as the support anchor when a hook cannot be conveniently accomodated.